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Application Number

07-566977

Filed

8-13-90

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27

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United States Patent [19]

Cook et al.

[11] Patent Number: 5,681,941

[45] Date of Patent: Oct. 28, 1997

[54] SUBSTITUTED PURINES AND OLIGONUCLEOTIDE CROSS-LINKING

[75] Inventors: Phillip Dan Cook; Muthiah Manoharan, both of Carlsbad; Kanda S. Ramasamy, Laguna Hills, all of Calif.

[73] Assignee: ISIS Pharmaceuticals, Inc., Carlsbad, Calif.

[21] Appl. No.: 189,792

[22] Filed: Feb. 1, 1994

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 463,358, Jan. 11, 1990, abandoned, and Ser. No. 566,977, Aug. 13, 1990, abandoned.

[51] Int. Cl.⁶ C07H 21/00; C07H 19/16

[52] U.S. Cl. 536/23.1; 536/22.1; 536/25.3; 536/25.34; 536/26.26; 536/26.7; 544/264

[58] Field of Search 536/22.1, 23.1, 536/25.3, 25.34, 26.7, 26.26; 544/264

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